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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHUXIN CHEN, RALPH GNAUCK,  
and GEORGE T. NOLL

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Appeal 2009-1514  
Application 10/689,370<sup>1</sup>  
Technology Center 2800

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Decided:<sup>2</sup> May 8, 2009

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Before ROBERT E. NAPPI, MARC S. HOFF, and KARL EASTHOM,  
*Administrative Patent Judges.*

HOFF, *Administrative Patent Judge.*

DECISION ON APPEAL

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<sup>1</sup> The real party in interest is AT&T Laboratories, Inc.

<sup>2</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

## STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to a system and method for monitoring and analyzing one or more pieces of telecommunication network equipment via a rule based system (para. 0002). The monitoring system can perform various software routines that can produce a series of graphical output images, to illustrate the status of a particular node in the network (para. 0018).

Claim 1 is exemplary:

1. A system for monitoring equipment in a telecommunications network, the system comprising:
  - a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;
  - a plurality of rules related to the monitor set, wherein the rules include at least one rule usable to predict exhaustion of the equipment;
  - means for obtaining data related to the monitor set; and
  - a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the one or more analytical reports include a prediction of exhaustion of the equipment, wherein the program includes:
    - an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the plurality of rules and selectively firing the rule on the data to produce an analysis to create the one or more analytical reports.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Husseyiny	US 5,210,704	May 11, 1993
Pisello	US 5,678,042	Oct. 14, 1997

Bergholm	US 5,761,432	Jun. 2, 1998
Kekic	US 5,999,179	Dec. 7, 1999
Jain	US 6,225,999 B1	May 1, 2001
Chen	US 6,668,241 B2	Dec. 23, 2003
Sampath	US 6,892,317 B1	May 10, 2005

Claims 1-9 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Chen in view of Husseiny.

Claims 1 and 13-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath and Husseiny.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath, Husseiny, and Pisello.

Claims 4 and 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Jain and Bergholm.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Jain, Bergholm, and Husseiny.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Jain, Bergholm, and Pisello.

Claims 10-12, 16, and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath and Pisello.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath, Pisello, and Husseiny.

Throughout this decision, we make reference to the Appeal Brief (“Br.,” filed September 5, 2007), the Reply Brief (“Reply Br.,” filed January

23, 2008) and the Examiner's Answer ("Ans.," mailed November 28, 2007) for their respective details.

### ISSUES

With respect to claims 1 and 10, Appellants argue that the Examiner has not set forth a prima facie case of obviousness because Sampath is not concerned with prediction of equipment exhaustion, but rather with prediction of equipment failure (App. Br. 5), and because Sampath does not teach a program for creating one or more analytical reports, those reports including a prediction of exhaustion of the monitored network equipment (App. Br. 5-6).

With respect to claims 4 and 10, Appellants argue that the Examiner failed to identify a valid reason why a person of ordinary skill in the art would have combined the references to achieve the claimed invention (App. Br. 7, 9).

Appellants' arguments present us with the following issues:

1. Have Appellants shown that the Examiner erred in finding that Sampath's teaching of prediction of equipment failure does not anticipate the claimed prediction of equipment exhaustion?
2. Have Appellants shown that the Examiner erred in finding that Kekic in combination teaches the creation of one or more analytical reports?
3. Have Appellants shown that the Examiner erred in combining the various references to arrive at the claimed invention?

## FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

### *The Invention*

1. According to Appellants, the invention concerns a system and method for monitoring and analyzing one or more pieces of telecommunication network equipment via a rule based system (para. 0002). The monitoring system can perform various software routines that can produce a series of graphical output images, to illustrate the status of a particular node in the network (para. 0018).

2. Appellants' Specification does not provide a definition of the phrase "equipment exhaustion."

### *Kekic*

3. Kekic teaches a comprehensive open, standards-based network management solution for computer networks having a computer network management capability (col. 5, ll. 39-42).

4. Kekic teaches network management including a graphical user interface (GUI) which gives a visual representation of the status of a component by varying its color (col. 6, ll. 30-32), and flashes an alarm button when an event associated with an alarm occurs, alerting the user that action may be required in management of the computer network element (col. 6, ll. 41-45). Kekic further teaches maintaining an alarm log which a user may review (col. 6, l. 46).

### *Sampath*

5. Sampath teaches real-time failure prediction and diagnoses of electronic systems operating in a network environment (Abstract).

6. Prediction/diagnostics circuit 150 makes a determination as to whether status information indicates that an electronics system has failed, or is predicted to fail, based on a prognostic/diagnostic analysis of the [status] information (col. 5, l. 64 – col. 6, l. 1).

7. If a failure is detected, or is suspected, the repair planning circuit 165 determines a corrective repair action (col. 6, ll. 5-7), which may include an action request to the appropriate service, repair, and/or parts/consumable supplier, or to an autonomous repair agent (col. 6, ll. 63-65).

*Jain*

8. Jain teaches a graphical user interface that permits a network manager to select a limited number of network components for display in a topological map, along with pertinent information relating thereto, while removing the display of undesirable or unnecessary data (col. 2, ll. 42-47).

*Bergholm*

9. Bergholm teaches a method and apparatus for more efficient use of telecommunications network resources, including an attribute designed database system which provides for inventory management, order process management and design management (col. 1, ll. 8-13).

*Pisello*

10. Pisello teaches a network management system having virtual catalog overview function for viewing of files distributively stored across a network domain (col. 4, ll. 32-34).

*Husseiny*

11. Husseiny teaches a wearout monitor for failure prognostics to predict incipient failure in rotating mechanical equipment (col. 1, ll. 9-11).

*Chen*

12. Chen teaches a rule-based capacity management system for an inter office facility (Abstract).

#### PRINCIPLES OF LAW

Section 103 forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 405 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 415, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 550 U.S. at 415 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar

elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

*Id.* at 417. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

## ANALYSIS

### OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION

Appellants present no arguments directed to this rejection. Because Appellants have not shown error in the Examiner’s rejection, then, we will sustain the Examiner’s rejection of claims 1-9 under the judicially created doctrine of obviousness-type double patenting.<sup>3</sup>

### SECTION 103 REJECTION OF CLAIMS 1 AND 13-15

We select claim 1 as representative of this group, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii).

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<sup>3</sup> See MPEP § 1205.02, Rev. 3, Aug. 2005 (“If a ground of rejection stated by the examiner is not addressed in the appellant’s brief, that ground of rejection will be summarily sustained by the Board.”); *see also* 37 C.F.R. § 41.37(c)(1)(vii) (requiring a statement in the briefs as to each ground of rejection presented by Appellant for review); 37 C.F.R. § 41.37(c)(1)(vii) (stating that arguments not presented in the briefs by Appellant will be refused consideration).

Appellants argue that the Examiner has failed to make out a prima facie case of obviousness because Sampath teaches predicting equipment failure, not predicting equipment exhaustion (App. Br. 5), and because neither Kekic nor Sampath teach creating one or more analytical reports (App. Br. 5-6).

Appellants' arguments are not persuasive of Examiner error. In order to refute the Examiner's rejection over Kekic in view of Sampath, Appellants have the burden of establishing why Sampath's prediction of equipment failure does not equate to the claimed prediction of equipment exhaustion. We find that Appellants have not carried their burden. Contrary to Appellants' arguments (App. Br. 5), the Specification does not provide any definition of "equipment exhaustion" (FF 2). Appellants refer to the content of claims 2 and 3 as allegedly defining "equipment exhaustion" (App. Br. 5). Claims 2 and 3, however, merely express possible rules usable to *predict* exhaustion, rather than informing the person of ordinary skill in the art what exhaustion actually *means*. In our view, "projected lifetime" and "capacity" of equipment (recited in claims 2 and 3, respectively) are as applicable to potential equipment failure as they are to potential equipment exhaustion; as a result, the claim language provides no guidance regarding any functional difference between the two terms.

We therefore find that Appellants have not articulated a functional difference between equipment failure and equipment exhaustion. We concur in the Examiner's view that the two phrases are analogous and amount to the end of equipment's "useful life" (Ans. 24). As a result, we find that Appellants have not established that the Examiner erred in reading

Sampath's prediction of equipment failure as meeting the claim limitations regarding predicting equipment exhaustion.

With respect to claim 1's recitation of "a program for creating one or more analytical reports," we are not persuaded by Appellants' argument that Sampath does not teach such analytical report creation. Sampath teaches real-time failure prediction and diagnoses of electronic systems operating in a networking environment (FF 5). Prediction/diagnostics circuit 150 makes a determination as to whether status information indicates that an electronics system has failed, or is predicted to fail, based on a prognostic/diagnostic analysis of the [status] information (FF 6). If a failure is detected, or is suspected, the repair planning circuit 165 determines a corrective repair action (FF 7), which may include an action request to the appropriate service, repair, and/or parts/consumable supplier, or to an autonomous repair agent (FF 7). Sampath thus teaches analysis (real-time processing) as well as reporting, meeting the limitation at issue.

We further observe that Kekic teaches network management including a graphical user interface (GUI) which gives a visual representation of the status of a component by varying its color (FF 4), and flashes an alarm button when an event associated with an alarm occurs, alerting the user that action may be required in management of the computer network element (*id.*). Kekic further teaches maintaining an alarm log which a user may review (*id.*). We find that Kekic thus teaches analysis of network components, and reports to the user of component status, thus also meeting the claim limitation of "creation of analytical reports."

Because we find that Appellants have not carried their burden of establishing a functional difference between "equipment exhaustion" and

“equipment failure,” and because we find that both Kekic and Sampath teach the creation of analytical reports about a monitor set, we concur in the Examiner’s conclusion that it would have been obvious to combine Kekic and Sampath to achieve the instant invention, in order to provide a better rule-based monitoring system (Ans. 12).

We conclude that Appellants have not established error in the Examiner’s rejection, and we will sustain the Examiner’s rejection of claims 1 and 13-15 under 35 U.S.C. § 103.

#### SECTION 103 REJECTION OF CLAIMS 2 AND 3

We affirm *supra* the rejection of parent claim 1 under U.S.C. § 103 as unpatentable over Kekic in view of Sampath. Appellants present no separate argument for the patentability of dependent claims 2 and 3. We will therefore sustain the rejection of claim 2 under 35 U.S.C. § 103 as unpatentable over Kekic in view of Sampath and Husseiny, for the same reasons expressed with respect to claim 1. We will also sustain the rejection of claim 3 under 35 U.S.C. § 103 as unpatentable over Kekic in view of Sampath, Husseiny, and Pisello, for the same reasons expressed with respect to claim 1.

#### SECTION 103 REJECTION OF CLAIMS 4 AND 7-9

We select claim 4 as representative of this group, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii).

Appellants’ argument for the patentability of claim 4 consists of an assertion that the Examiner has failed to identify a valid reason why a person of ordinary skill in the art would have made the combination put forth by the Examiner, and that none of the cited references nor the state of the art provides any incentive or motivation to make the combination (App. Br. 7).

We are not persuaded by Appellants' argument. The Examiner has, in fact, identified reasons that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *KSR*, 550 U.S. at 416. The Examiner stated that it would have been obvious to modify Kekic in view of Jain, in order to provide a better rule-based monitoring expert system that permits the network manager to customize the reviewed information in a manner which limits it to that which is particularly useful to the manager and provides the flexibility to navigate to any given area of the network to obtain all information necessary to properly carry out management duties (Ans. 15, citing Jain col. 2, ll. 31-38). The Examiner stated that it would have been obvious to modify Kekic in view of Bergholm in order to monitor the network equipments (sic) located in various control pointes (sic) more efficiently (Ans. 15-16, citing Bergholm col. 1, ll. 15-27).

Appellants have provided no reasons why the Examiner's stated rationale for combining Kekic, Jain, and Bergholm to achieve the invention of claim 4 is erroneous. Appellants' unsupported assertion in the Reply Brief that the cited text of Bergholm clearly fails to provide a motivation for combining such teaching with the system of Kekic (Reply Br. 5) is likewise unpersuasive to establish error in the Examiner's rejection.

Because Appellants have not established error in the Examiner's rejection, we will sustain the Examiner's rejection of claims 4 and 7-9 under 35 U.S.C. § 103.

#### SECTION 103 REJECTION OF CLAIMS 5 AND 6

We affirm *supra* the rejection of parent claim 4 under U.S.C. § 103 as unpatentable over Kekic in view of Jain and Bergholm. Appellants present

no separate argument for the patentability of dependent claims 5 and 6. We will therefore sustain the rejection of claim 5 under 35 U.S.C. § 103 as unpatentable over Kekic in view of Jain, Bergholm, and Pisello, for the same reasons expressed with respect to claim 4. We will also sustain the rejection of claim 6 under 35 U.S.C. § 103 as unpatentable over Kekic in view of Jain, Bergholm, and Hussein, for the same reasons expressed with respect to claim 4.

CLAIMS 10-12, 16, AND 18-20

We select claim 10 as representative of this group, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii).

As with claim 1, *supra*, Appellants argue that the Examiner has failed to make out a prima facie case of obviousness because Sampath teaches predicting equipment failure, not predicting equipment exhaustion (App. Br. 8), and because neither Kekic nor Sampath teach creating one or more analytical reports (App. Br. 8). Further, as with claim 4 *supra*, Appellants assert that the Examiner has failed to identify a valid reason why a person of ordinary skill in the art would have made the combination put forth by the Examiner, and that none of the cited references nor the state of the art provides any incentive or motivation to make the combination (App. Br. 8-9).

As noted *supra* with respect to claim 1, Appellants have not satisfied their burden of establishing why Sampath's prediction of equipment failure does not equate to the claimed prediction of equipment exhaustion. As further noted *supra* with respect to claim 1, we further find that Kekic and Sampath both teach creating analytical reports, within the meaning of claim 10.

As noted *supra* with respect to claim 4, Appellants' argument that the combination of Kekic, Sampath, and Pisello is likewise unconvincing. Appellants provide no reasons, beyond mere assertion, why the Examiner's asserted combination is improper to achieve the instant invention. Appellants' unsupported contention in the Reply Brief that Pisello "clearly fails to provide a motivation" for making the proposed combination (Reply Br. 6) is also wholly insufficient to establish Examiner error.

Because Appellants have failed to establish error in the Examiner's rejection, we will sustain the § 103 rejection of claims 10-12, 16, and 18-20.

#### CLAIM 17

We affirm *supra* the rejection of parent claim 10 under U.S.C. § 103 as unpatentable over Kekic in view of Sampath and Pisello. Appellants present no separate argument for the patentability of dependent claim 17. We will therefore sustain the rejection of claim 17 under 35 U.S.C. § 103 as unpatentable over Kekic in view of Sampath, Pisello, and Hussein, for the same reasons expressed with respect to claim 10.

#### CONCLUSIONS OF LAW

1. Appellants have not shown that the Examiner erred in finding that Sampath's teaching of prediction of equipment failure does not anticipate the claimed prediction of equipment exhaustion.
2. Appellants have not shown that the Examiner erred in finding that Kekic in combination with Sampath teaches the creation of one or more analytical reports.
3. Appellants have not shown that the Examiner erred in combining the various references to arrive at the claimed invention.

**ORDER**

The Examiner's rejection of claims 1-20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**

ELD

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